

THE SAT REPORT

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Prescription Drug Abuse: A Public Health Issue in Tennessee

Designed to be dispensed only after a proper diagnosis, prescription drugs are required to be taken under the advice and care of a physician. While most physicians and patients comply with this protocol, prescription drug abuse, also known as pharmaceutical misuse, remains a pressing public health issue in Tennessee and across the country.

Among Americans 12 and older, 1.3 million suffer physical dependence or heavy daily use of prescription drugs [2]. More than 6.3 million reported being current prescription abusers in 2003 [3]. Visits to emergency rooms (ERs) as a result of taking prescription pain killers have also risen—from 1994 to 2001, ER visits related to oxycodone increased over 352%, and hydrocodone-related visits rose by over 131% [4]. Two and a half million people initiated nonmedical use of various prescription pain relievers in 2002 alone [3]. Each year, about 3 million people report addictions to prescription opiates such as



OxyContin [5], and another 2.2 million report use of other prescription drugs: tranquilizers (1.2 million), sedatives (225,000) referred to as CNS depressants, and stimulants (761,000) [3].

Prescription drug abuse has become so common that it has ranked second to marijuana in adult and youth use [4].

Previous abusers of opioids, other prescription drugs, or alcohol are more likely to become addicted to a prescribed painkiller [6]. In addition, prescription drug abusers have demonstrated higher rates of illicit substance abuse. For example, though 17% of youth in 2000 used marijuana, 63% of youth who abused prescription drugs reported also abusing marijuana [3]. About 14% of youth between the ages of 12 and 17 and more than 22% of 18-25 year-olds have abused prescription drugs at least once. Vicodin use without a prescription was reported by over a

Highlights

- Prescription drug abuse has ranked second to marijuana in adult and youth use.
- More than 6.3 million Americans reported being current abusers of prescription medication in 2003.
- Two and a half million people in the US initiated nonmedical use of various prescription pain relievers in 2002 alone.
- Public health strategies should be developed to help combat the nation's rising prescription drug problem.

tenth of 12th graders while similar use of Oxycontin was reported by around 5% [4]. Additionally, Hispanics, who tend to have fewer problems with illicit substances compared to other ethnic groups, now evidence the highest rates of prescription drug abuse, with 1 in 5 Hispanic teens abusing such substances in 2005 [7].

In Tennessee

Tennessee has been hard hit by the prescription drug problem. Diverted pharmaceuticals remain a major problem with above average statewide consumption of such drugs as meperidine, hydromorphone, hydrocodone, and amphetamine as well as heavy abuse of dilaudud and morphine [9].

In FY 2001-02, agents of the Tennessee Bureau of Investigation (TBI) seized or purchased 20,336 dosage units of illegally diverted prescription drugs [10]. Though opioids like Dilaudud and OxyContin have been recognized as the state's worst prescription drug problems, steroids and other pharmaceuticals also pose a serious threat. In 2003, 7% of Tennessee youth (9.2% of males) surveyed in grades 9-12 reported having illegally used steroids one or more times in their lives [11], reflective of national high school rates which have increased 126% between 1991 and 2003, marking a 350% hike for girls [12].

Furthermore, Tennessee ranked a low 41st in the nation regarding the serious discipline of physicians by state boards—only 9 of 51 doctors disciplined were found to be in violation in 2004. Still, more than 1,000 of Tennessee's 10,455 licensed doctors are estimated to be struggling with painkiller and alcohol abuse [5].

Most Commonly Abused Prescription Drugs

Of the prescription drugs that were abused nationwide in 2005, 73.5% were pain relievers, 28.1% tranquilizers, 23.4% stimulants (almost half of which were methamphetamine), and

4.3% sedatives [13]. In addition to Tennessee's struggle with these drug categories, teen steroid use has also been a problem.



Opioids

Seventy percent of prescription drug abusers (close to 4.3 million) use prescribed painkillers or opioids [4]. Opioids are strong narcotics prescribed for severe and/or long-lasting pain. They include morphine, codeine, oxycodone (Percocet or OxyContin), propoxyphene (Darvon), hydrocodone (Vicodin or Lortab), hydromorphone (Dilaudud), and meperidine (Demerol) [6]. Because of OxyContin's opiate-like effects, many use it to replicate heroin or to avoid heroin withdrawal. Typically in tablet form, opioids have a high overdose risk as they are chewed, crushed and snorted, or dissolved and injected to release the medication faster [4].

High doses of opioid can lead to breathing problems and result in respiratory depression, a risk that increases for those taking an opioid in conjunction with alcohol or other prescription drugs, such as sedatives and tranquilizers [6]. However, the most common side effects of opioids are constipation, fatigue or drowsiness, nausea or vomiting, itching, dry mouth, sweating, headache, and feelings of weakness or exhaustion.

CNS Depressants

Central nervous system (CNS) depressants are used to treat insomnia, anxiety, seizures, acute stress, and panic attacks. This category includes

such drugs as the barbiturate (e.g., mephobarbital and pentobarbital sodium) and benzodiazepine (Xanax, Valium, Klonopin, etc.) families of sedatives and tranquilizers. These substances are often used as party drugs because of their alcohol-like effects, including reduced inhibitions and impaired judgment. Brands like Rohypnol, also called date rape drugs, go as far as incapacitating victims and rendering them incapable of event recall [14]. These drugs are commonly mixed in alcohol (a combination that can be life-threatening for any CNS depressant) and given to unsuspecting victims. Even when taken legally on a daily basis, these drugs can cause amnesia, hostility, irritability, and disturbing dreams.

Stimulants

Like other stimulants, methylphenidates (Ritalin/Concerta) and dextro-amphetamines (Adderall/Dexedrine) are designed to treat obesity, asthma and other respiratory problems, as well as neurological disorders and other ailments [3]. Stimulants have fallen out of much medical use because of their potential for abuse or addiction, so they are now reserved as a last resort only for ADHD, depression, and sleep disorders such as narcolepsy. They increase blood pressure and heart rate and impact the circulatory and respiratory systems. Associated withdrawal symptoms include fatigue, depression, sleep disturbances, hostility/paranoia, dangerously high body temperatures, irregular heartbeats, cardiovascular failure, and lethal seizures.

Steroids

Essentially, anabolic steroids are a synthetic testosterone that promotes skeletal muscle growth and development of male-associated characteristics. These substances are often abused to enhance athletic performance. Taken orally or injected with a needle, steroids can cause liver problems, stunted growth, infertility, and testicular shrinkage; they can also increase the risk of heart attacks and strokes and may result in irritability and aggression.

How Abused Prescriptions are Obtained

Means of acquiring prescription drugs for abusive purposes are varied but mostly fall into two main categories, over-prescribing and diversion.

Over-prescribing

Over-prescribing can occur when a physician has insufficient knowledge or inadequate training about certain pain medications. Also, physicians who are overly responsive to patients' demands or patients' pleas for relief may also prescribe more medication than the appropriate dosage would require.

Diversion

Pre-prescribed medications are diverted to the illegal market in many ways. Some of the most common ways are detailed below.

Doctor-shopping is a practice in which some individuals seek to obtain multiple prescriptions without alerting suspicion by using multiple addresses and bogus phone numbers or employing other unscrupulous tactics when going to doctors' offices or hospital ERs.

Prescription forgery happens when legitimate prescription pads are stolen, when prescription orders are written for fictitious patients, or when patients alter physicians' prescriptions to get more refills. Prescription pads are often stolen from the hectic environment of hospitals. Also, many forgers attempt to phone in fraudulent prescription orders to pharmacies. Some forgers may have fake prescription pads printed and then attempt to have the prescription orders dispensed.

Illicit prescribing by physicians is rare but still contributes to the problem of prescription drug abuse. Typically, these physicians set up "pain management" clinics that act as dealers of prescriptions to substance abusers under the guise of legitimate medical need.

Drug theft of prescription drugs can occur any time from the manufacturing

of the product to the patient's storage of it. Most often, drug theft occurs during home robberies or through false reports of prescription thefts. Adults and teens steal drugs from family members and friends. Individuals report pain to get prescriptions at ERs, and healthcare professionals have stolen from their facilities and even hospice patients for personal consumption or to sell for profit.

Medicaid fraud is most often committed at pharmacies, where employees have the means to bill Medicaid for prescriptions that were never given out, to substitute generic for name brand drugs, to short count pills, or to fill prescriptions without a refill and then over-bill Medicaid.

Internet pharmacies facilitate distribution of diverted prescription narcotics and other controlled substances through their websites [4]. While nearly 500 websites have been identified as advertising prescription drug sales, only 6% required a prescription, and 47% indicated the drugs would be shipped from outside the US. This is complicated by the fact that new sites may be quickly created, and existing sites may be moved or removed before they can be tracked or monitored.

Obtaining prescription drugs via online sources increases the possibility of using prescriptions without a doctor's supervision, therefore increasing the likelihood of abuse. Pharmaceuticals obtained online may be from unreliable sources, may be fake, altered, contaminated, or expired, or may be from countries without the consumer protective regulations placed upon such drugs in the US.

Pharming, practiced most commonly by teens, is dangerous and potentially fatal, as prescriptions, typically



stolen from relatives, are dumped into a common bowl at a party and randomly consumed by attendees.

Addressing the Issue

In addition to rewriting warning labels, tracking pills, educating doctors, and cooperating with officials, manufacturers are working to reformulate prescription drugs to prevent misuse; possible solutions include neutralizing opiate effects or including chemical irritants that would cause burning sensations if the substance were misused [15]. Many companies, organizations, and agencies use media and public service announcements to reach target audiences; the Office of National Drug Control Policy's ads for Hispanic markets are a prime example. The DEA targets online pharmaceutical traffickers and has a toll-free international hotline for sale/abuse reports of such substances (1-877-RX-ABUSE).

Already, the most commonly abused prescription drug family (opioids) consists of controlled substances with both federal and state regulations that demand pharmacies to take extra precautions, such as requiring additional IDs and possible waiting periods between drop-off and pick-up [6]. However, due to increasing pharmaceuticals misuse, in August 2005, U.S. Senator Jeff Sessions' National All Schedules Prescription Electronic Reporting Act was signed into legislation to create a federal grant program to help states establish or enhance a localized prescription drug monitoring system [1].

Steps Taken in Tennessee

In step with this federal law, TennCare reformations took place in August, 2005, to reduce the system's potential for abuse, attempting to prevent enrollees from attaining additional, unnecessary prescriptions from physicians other than their primary care doctor or through emergency room visits.

Previously, abuse of the system had been problematic, following 2002 legislation that was unable to effectively

monitor clients who attempted to get prescriptions from numerous doctors. Only prescriptions paid for by TennCare dollars were tracked, while no regulations were in place for prescriptions purchased with personal funds, across state lines, or via the Internet, though related visits were still covered.

To stop doctors from abusing, state law prohibits their use of controlled substances in a way that inhibits medical practice [5]. Also, the Tennessee Medical Foundation's Physicians Health Program directs state doctors with substance abuse problems to treatment facilities and helps provides them aid for recovery for up to five years.

As recently as December, 2006, Tennessee has taken a major step to combat prescription drug abuse. Effective December 1, the Tennessee Department of Commerce and Insurance, Board of Pharmacy, has launched a statewide Controlled Substance Database that will help identify prescribing patterns of health care professionals, dispensing patterns of Board of Pharmacy licensees, and usage patterns of Tennessee patients. All pharmacists and health care practitioners who dispense certain controlled substances will be required to report relevant information to the database twice a month [15].

Needed Services

To reduce prescription drug abuse, the National Center on Addiction and Substance Abuse (CASA) has called for "a major public health education and prevention campaign and better training of physicians, pharmacists and other health care professionals...[and have] urged parents to keep a closer watch on their children's Internet use and to better safeguard their prescription medications at home" [12]. Prevention and treatment services for those with a prescription drug problem also need to address prior substance abusers' in-

creased chances of becoming addicted to prescribed painkillers as well as the higher rates for illicit substance abuse among prescription drug abusers.

Policy should also attend to addictions suffered by the special population of doctors and healthcare professionals for several reasons: (1) physicians are more likely to abuse prescribed painkillers, (2) they represent a great deal of training potentially lost and (3) they have a great impact on others' health [5].

The following strategies could help ensure appropriate prescription drug use [16]:

- Educate/train physicians, pharmacists, and other healthcare professionals
- Educate consumers and provide educational materials focused on teens
- Control prescription drug theft and fraud
- Prosecute Internet pharmacies running illegal operations
- Maintain security of prescription pads, reporting any thefts to the State Board of Pharmacy and local pharmacies
- Maintain a file or database, at pharmacies, of doctor signatures and immediately report a suspected fake prescription

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